

CLAIMS**I (WE) CLAIM:**

1. In a wireless communication system having a rake receiver with multiple
2 fingers, a method comprising:
determining a lock state for a first finger of the multiple fingers;
4 determining a comparison of received signal energy for the first finger to
a threshold value if the first finger is out of lock; and
6 adjusting a lock filter for processing signals received on the first finger in
response to the comparison.
2. The method as in claim 1, further comprising:
2 waiting a first time period if the first finger is out of lock before adjusting
the lock filter.
3. The method of claim 1, wherein adjusting the lock filter further
2 comprises:
providing an output of the lock filter equal to the received signal when the
4 energy of the received signal is greater than the threshold; and
increasing an energy level of the lock filter when the energy of the
6 received signal is less than the threshold.
4. The method of claim 1, further comprising:
2 determining a comparison of filtered signal energy for the first finger to a
second threshold after adjusting the lock filter; and
4 reassigning a path to the first finger in response to the comparison.
5. The method of claim 4, further comprising:
2 maintaining path assignments to the multiple fingers for a predetermined
time period.
6. The method of claim 1, further comprising:
2 determining if a transmitter of the received signal is in soft hand off; and

4 providing power control instructions as a function of the energy of the
received signal if the transmitter is in soft hand off.

7. The wireless apparatus performing the method of claim 5, further
2 comprising:

instructing the transmitter to gradually adjust transmit power.

8. A transceiver, comprising:

2 a rake receiver having a plurality of fingers, the plurality of fingers
adapted to receive multipath signals; and

4 a lock detector coupled to the rake receiver operative to adjust signal
filtering based on lock states of the fingers.

9. The transceiver of claim 7, wherein the lock detector is further operative
2 to compare received energy of the received signal to a first energy threshold.

10. The transceiver of claim 8, wherein the lock detector comprises:

2 a lock filter operative to filter the received signal; and

4 a filter adjustment means operative to adjust the lock filter in response to
the lock detector.

11. The transceiver of claim 9, wherein the filter adjustment means waits a
2 predetermined time period prior to adjusting the lock filter.

12. A method for tracking a mobile station in a wireless communication
2 system, comprising:

determining if the mobile station is in soft hand-off;

4 ignoring a lock state of a rake antenna if the mobile station is in soft
hand-off; and

6 transmitting a predetermined power control pattern if the mobile station is
not in soft hand-off.

13. The method of claim 12, further comprising:

2 adjusting the power control as a function of received signal energy if the
mobile station is in soft hand-off.

14. A wireless apparatus, comprising:
- 2 filter means to filter a received signal from a first propagation path;
comparison means operative to compare the received signal to a
- 4 threshold value;
filter adjustment operative to adjust the filter means in response to the
- 6 comparison means.

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